

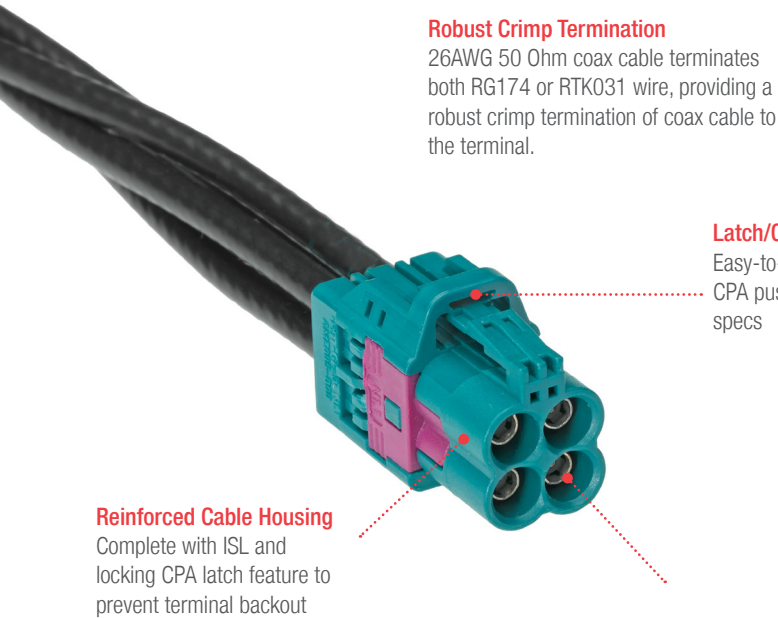
**PRELIMINARY**

# HFM – High-Speed FAKRA Mini Coaxial Cable Solution



The High-speed FAKRA Mini (HFM) Coaxial Cable Solution delivers 20 GHz of data speed for the connected vehicle, supporting any modern radar, camera, lidar or sensor applications

## Features and Advantages



**Robust Crimp Termination**  
26AWG 50 Ohm coax cable terminates both RG174 or RTK031 wire, providing a robust crimp termination of coax cable to the terminal.

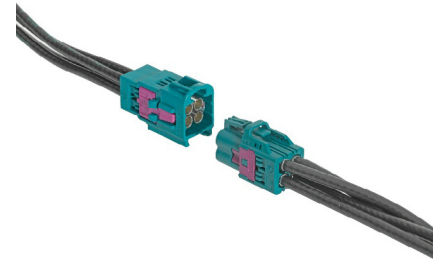
**Latch/CPA Design**  
Easy-to-use positive latch with a generous CPA push area satisfies USCAR or LV214 specs

**Reinforced Cable Housing**  
Complete with ISL and locking CPA latch feature to prevent terminal backout

**Fully-shielded Coaxial Cable Contacts**  
Provide optimal SI and EMI



HFM Quad Cable Jack (Male) to PCB Plug (Female)



HFM Quad Cable Plug (Female) to Cable Jack (Male)

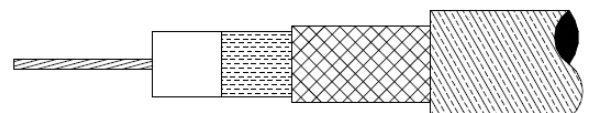
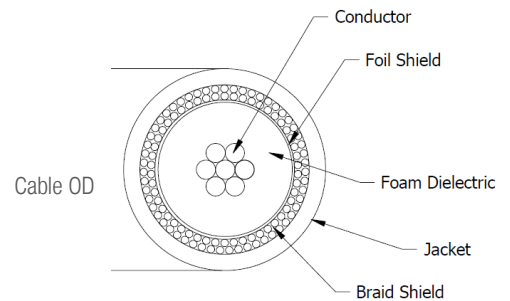


**Versatile, High-Performing PCB Header**  
360° fully-diecast shielded-header core optimizes EMI/EMC Performance. Versatile options for circuit count, sealing, and right angle, vertical and inline options

## Features and Advantages (Supported Coaxial Cable Types)

HFM Connector will support different coaxial cable types and outside diameters

Coaxial Cable Type	RG174	RTK031	RTK044
Cable Outside Diameter	2.80mm	3.30mm	3.60mm
Wire Size	26AWG	23AWG	19AWG
Conductor Size / Construction	0.14mm <sup>2</sup> / 7 stranded Cu	0.40mm <sup>2</sup> / 7 stranded Cu	0.85mm / Stranded Cu
Dielectric Type	XPE/PP	Foam PP	Foam PP
Impedance	50 Ohm	50 Ohm	50 Ohm
Screen Type	Foil + Braid	Foil + Braid	Foil + Braid
Temperature Rating	-40 to 105°C	-40 to 105°C	-40 to 105°C



PRELIMINARY

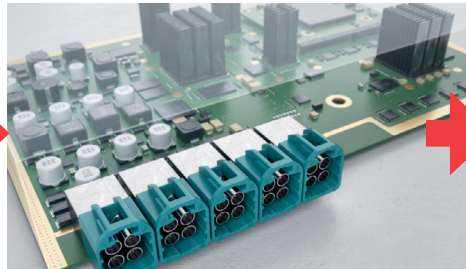
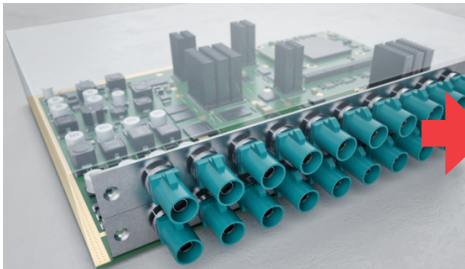
# HFM – High-Speed FAKRA Mini Coaxial Cable Solution



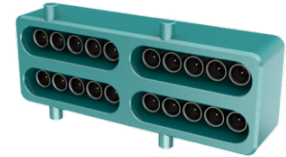
Past

Present

Future



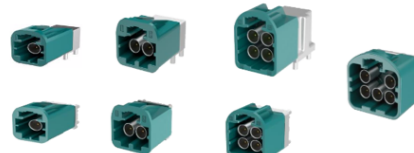
80% space savings\*



\*compared to current connector systems

## Applications

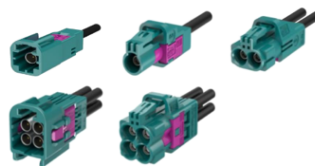
- Automotive/
- Commercial Vehicle/
- Construction & Ag Equipment
- High Speed Cable Networking
- Sensor Device Connectivity
- Gateway / Switch Module
- Autonomous Driving (ADAS)
- GPS / Infotainment
- Camera / Surround View
- High Resolution Displays 4K
- Truck
- Bus
- Taxi/Shared Ride fleets
- Self Driving tractors for farming
- Self Driving Construction/mining



PCB Connector



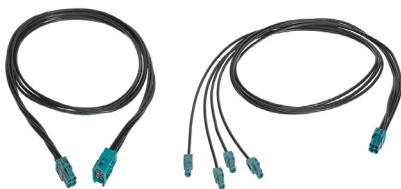
High Performance Connector



Cable Connector



Sealed Connector



Cable Assemblies & Molex Tempflex raw cable

# HFM – High-Speed FAKRA Mini Coaxial Cable Solution



## Specifications

### REFERENCE INFORMATION

Packaging: TBD  
UL File No.: TBD  
CSA File No.: TBD  
Mates With: TBD  
Use With: TBD  
Terminal Used: TBD  
Designed In: mm  
RoHS: Yes  
Halogen Free: TBD  
Glow Wire Compliant: TBD

### ELECTRICAL

Voltage (max.): 36V  
Current (max.): 1.5A  
Contact Resistance: 20 mOhms  
Dielectric Withstanding Voltage: 500V AC  
Insulation Resistance: 100 MOhms

### MECHANICAL

Contact Insertion Force: TBD  
Contact Retention to Housing: TBD  
Insertion Force to PCB: TBD  
Mating Force: TBD  
Unmating Force: TBD  
Durability (min.): TBD

### PHYSICAL

Housing:  
Header – Nylon, PA10-GF50  
Cable Plug – Nylon, PBT-GF20  
Contact: Phosphor Bronze  
Plating: Gold over Nickel  
Contact Area — Gold  
Solder Tail Area — Tin over Nickel  
Underplating — Nickel  
PCB Thickness: 1.57mm  
Operating Temperature: -40 to +105 °C

Note: Molex reserves the right to delay or cancel production of the depicted product without additional notice. Please contact your Molex customer service representative for product availability.

[www.molex.com/link/highspeedfakramini.html](http://www.molex.com/link/highspeedfakramini.html)

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